

**IN THE UNITED STATES DISTRICT COURT FOR THE
EASTERN DISTRICT OF VIRGINIA
Alexandria Division**

UNITED STATES OF AMERICA

v.

DANIEL EVERETTE HALE,

Defendant.

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No. 1:19-cr-59

Hon. Liam O’Grady

**MOTION FOR A DAUBERT HEARING WITH
RESPECT TO GOVERNMENT EXPERT ON VALUE OF PROPERTY**

COMES NOW the Defendant, Daniel Everette Hale, by counsel, and hereby moves this Honorable Court to conduct a hearing pursuant to Fed. R. Evid. 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), with respect to a witness proffered by the United States as an expert, Dr. Eric L. Lang, Director of the Defense Personnel and Security Research Center (“PERSEREC”). Dr. Lang has been identified as an expert to testify regarding the value of the government property that allegedly was converted without authority by the Defendant. But the witness has made no attempt to tie his opinion to the facts of the case, and does not appear even to know the quantity or subject matter of the allegedly stolen documents to which his testimony relates. It is as if, in a case turning on the valuation of a specific piece of real estate, the government were offering an expert witness who would testify only about the cost of real estate generally, without regard for the specific locality in which the property is located, the property’s condition, or the type and size of the land and any improvements on it. Such testimony flies in the face of Rule 702’s requirement that an expert’s methodology be reliably applied to the facts of the case. *Daubert* and

its progeny hold that this Court should not give its imprimatur to such testimony by permitting it to go before the jury with the cloak of expertise.

As set forth in more detail below, Dr. Lang's proffered expert testimony is based on an unreliable methodology and does not involve the reliable application of specialized knowledge to the facts of the case. The methodology described in Dr. Lang's report includes an arbitrary selection of past cases that involve substantially different facts, materials allegedly converted, and criminal violations. His selection of cases is both underinclusive because it includes only those cases involving the exfiltration of a U.S. Department of Defense ("DoD") resource for which he could find a monetary value, and overinclusive because it includes cases irrelevant to the specific facts in this case, including selecting in the report's limited 28 cases a few cases involving U.S. export control violations involving dramatic outliers in value.

The report also does not involve any expert analysis of the past cases. The report relies on publicly available information about the monetary value requested, offered, or received in those cases. The report then adds those values and divides by the number of cases to reach an average monetary value, regardless of whether those cases bear any relevance to the facts at issue here. Moreover, the values in the report frequently do not match those stated on PERSEREC's public website, which summarizes most of the cases cited in Dr. Lang's report. The estimated mean and median values in Dr. Lang's report are not derived from a rigorous methodology and do not involve applying an expert analysis to the facts of this case. For all of these reasons, the Court should hold a *Daubert* hearing and exclude Dr. Lang's proffered

expert testimony regarding the value of government property allegedly disclosed in this case.¹

ARGUMENT

I. Legal Standard

Rule 702 of the Federal Rules of Evidence, which governs the admissibility of expert witness testimony, provides as follows:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

In *Daubert*, 509 U.S. at 589 n.7, and *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 147 (1999), the Supreme Court emphasized that Rule 702 compels the district courts to perform a critical “gatekeeping” function concerning the admissibility of expert scientific and technical evidence. “This function inherently require[s] the trial court to conduct an exacting analysis of the foundations of expert opinions to ensure they meet the standards for admissibility under Rule 702.” *United States v. Abreu*, 406 F.3d 1304, 1306 (11th Cir. 2005); *see also Rembrandt Social Media, LP v. Facebook, Inc.*, 22 F.Supp.3d 585, 593 (E.D. Va. 2013) (“Relevance and reliability are the touchstones of expert testimony admissibility; an expert’s testimony is admissible

¹ For reference, Dr. Lang’s report is attached as Exhibit A, and a list of the cases upon which he relies, which was provided to the defense separately by the government, is attached as Exhibit B.

only if it is both relevant and reliable.”) (citing *Daubert*, 509 U.S. at 591). “The objective . . . is to ensure the reliability and relevance of expert testimony.” *Kumho Tire*, 526 U.S. at 152.

Determining the admissibility of expert testimony under Rule 702 requires that the court consider whether (1) the expert is qualified to testify competently regarding the matters he intends to address; (2) the methodology by which the expert reaches his conclusions is sufficiently reliable as determined by the sort of inquiry mandated in *Daubert*; and (3) the testimony assists the trier of fact, through application of scientific, technical, or specialized expertise, to understand the evidence or to determine a fact in issue. *Abreu*, 406 F.3d at 1306; *United States v. Frazier*, 387 F.3d 1244, 1260 (11th Cir. 2004) (citing *Daubert*, 509 U.S. at 589).

Daubert and its progeny require two threshold inquiries: reliability and relevance. The “reliability” component requires the court to find that expert testimony is based on “scientific knowledge” rather than “subjective belief,” and that it is “derived by the scientific method.” *Daubert*, 509 U.S. at 590. The “relevance” component requires the court to find that the proposed testimony will “assist the trier of fact to understand the evidence or to determine a fact in issue.” *Id.* at 591. Further, to be relevant and reliable, the scientific testimony must fit the facts of the case: the court must determine “whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute.” *Id.* at 591 (quoting *United States v. Downing*, 753 F.2d 1224, 1242 (3d Cir. 1985)); see also *United States v. Dorsey*, 45 F.3d 809, 813 (4th Cir. 1995) (quoting *Daubert*, 509

U.S. at 590-91). Because the trial court under *Daubert* acts as the “gatekeeper,” it must conduct these inquiries pre-trial. And it must do more than take the word of the proponent of the testimony, because “nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.” *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997).

In deciding whether the Rule 702 requirements are met in assessing the reliability of an expert scientific or technical opinion, *Daubert* instructs courts to consider the following factors: (1) whether the expert’s theory can be and has been tested; (2) whether the theory has been subjected to peer review and publication; (3) the known or potential rate of error of the particular scientific technique; and (4) whether the technique is generally accepted in the scientific community. *Daubert*, 509 U.S. at 593-94. These factors are illustrative, not exhaustive, and not all of them will apply in every case, and in some cases other factors will be equally important in evaluating the reliability of proffered expert opinion. *Frazier*, 387 F.3d at 1262; *Kumho Tire*, 526 U.S. at 150-52; Fed. R. Evid. 702, advisory comm. note (2000 amendments); *see also Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 155 (3d Cir. 1999) (“Not only must each stage of the expert’s testimony be reliable, but each stage must be evaluated practically and flexibly without bright-line exclusionary (or inclusionary) rules.”).

The same criteria used to assess the reliability of scientific or technical testimony also may be used to evaluate the reliability of non-scientific, experience-

based testimony. *Kumho Tire*, 526 U.S. at 152; *see also Clark v. Takata Corp.*, 192 F.3d 750, 758 (7th Cir. 1999) (“In determining whether an expert’s testimony is reliable, the *Daubert* factors are applicable in cases where an expert eschews reliance on any rigorous methodology and instead purports to base his opinion merely on ‘experience’ or ‘training.’”). If the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts. The trial court’s gatekeeping function requires more than simply “taking the expert’s word for it.” Fed. R. Evid. 702, advisory comm. note (2000 amendments) (citation and internal quotations omitted); *see also United States v. Daubert*, 43 F.3d 1311, 1316 (9th Cir. 1995) (following remand, observing that the gatekeeping role requires a district court to make a reliability inquiry and that “the expert’s bald assurance of validity is not enough”). Therefore, even where the substance of an expert’s testimony does not lend itself to evaluation under the specific factors set forth in *Daubert* for evaluating scientific testimony, the Court’s gatekeeping function must nonetheless “ensure the reliability and relevancy of expert testimony [by] mak[ing] certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire*, 526 U.S. at 152.

Finally, the proponent of expert testimony always bears the burden of establishing the admissibility of the testimony it seeks to elicit. *Frazier*, 387 F.3d at

1260 (“The burden of establishing qualification, reliability, and helpfulness rests on the proponent of the expert opinion, whether the proponent is . . . the government or the accused in a criminal case.”); *Rembrandt Social Media*, 22 F.Supp.3d at 593 (proponent “bears the burden of showing that the expert . . . testimony is relevant and reliable . . . [and] tie[d] . . . to the facts of the case”).

II. The Proposed Expert’s Proffered Testimony Regarding the Value of the Government Property is Insufficiently Reliable or Relevant to be Admitted under Fed. R. Evid. 702.

The government alleges that Mr. Hale knowingly and unlawfully stole and converted to his own use or the use of another and conveyed without authority 14 documents of the United States with an aggregate value of more than \$1,000 in violation of 18 U.S.C. § 641. Section 641 provides that whoever “knowingly converts to his use or the use of another, or without authority, . . . conveys . . . any record . . . or thing of value of the United States” is guilty of a felony if the value of the property exceeds \$1,000. 18 U.S.C. § 641.

The government’s proffered expert witness, Dr. Lang, prepared a report that averaged, based on publicly-available information that PERSEREC had collected on resource exfiltration by DoD insiders, the monetary value (based on monies requested, offered, or received) of exfiltrated information, in order to estimate the typical monetary value of sensitive DoD information.

Dr. Lang’s report reviewed 83 DoD-specific publicly accessible exfiltration convictions between 1985 and 2017.² Dr. Lang is the Director of PERSEREC, which

² Specifically, eligible cases in this report were individuals who had (1) exfiltrated a DoD resource; (2) been arrested after November 19, 1985, the publication date of

provides summaries of these cases on its public website, along with citations to relevant news articles.³ Dr. Lang determined that only 40 of those 83 cases appeared to have been motivated by money and thus excluded the other 43 cases from his review. In other words, Dr. Lang began his analysis by excluding from the universe of comparator cases those cases that are most like the present case, in which there is no allegation that Mr. Hale was motivated by money, offered any money, or received any money. Of the remaining 40 cases, Dr. Lang found publicly available information for only 24 defendants regarding how much money they requested, received, or were offered over the course of their exfiltration efforts, which lasted several months to many years, and eliminated the other 12 of the other 16 from his review. Of the remaining 28 cases, Dr. Lang's report reflects that four defendants received no money,⁴ and that the other 24 defendants received between \$200 and \$636,000. Based on this selection of cases, Dr. Lang determined that the relevant mean value of exfiltrated DOD documents is \$57,516 and the median value is \$7,000.

In sum, therefore, Dr. Lang's application of "expertise" involved the following steps: i) reviewing publicly available information about prior cases involving exfiltrated DOD documents; ii) excluding from that list of cases those, like the instant

the report issued by the Commission to Review DoD Security Policy and Practices; and (3) been convicted or pled guilty by December 31, 2017. *See* Exh. A at 2.

³ *See* PERSEREC, *Espionage and Other Compromises of National Security 1975-2008*, available at <https://www.dhra.mil/PERSEREC/Espionage-Cases>.

⁴ Dr. Lang decided to include these four zero-dollar cases in his report because "it could not be determined whether the four 'zero-dollar' cases involved worthless documents or, alternatively, the documents had significant value but the perpetrators negotiated ineffectively." Exh. A at 1.

case, in which the exfiltrator was not apparently motivated by money; and iii) doing simple math (adding the dollar value of the documents in the 28 remaining cases and dividing by 28 to determine their average or “mean” value).

There are numerous problems apparent on the face of Dr. Lang’s report. First, excluding cases in which the exfiltrator was not motivated by money has an obvious and unquantifiable impact on the results. For example, a technical document containing detailed schematics for a new weapons system may have immense value to a foreign adversary but, given its technical nature, be of no value to a person attempting to inform the public about what he or she viewed as improper or unethical government conduct. On the other hand, documents showing that the President of the United States was not leveling with the American people about the quantum of collateral damage caused by certain military actions is exactly the sort of information that might be revealed by a person motivated by a desire to inform the public but be of no monetary value to anyone – given that the adversary in question almost certainly knows of the collateral damage being hidden from the American public. Accordingly, there is reason to believe that the category of cases Dr. Lang excluded (those most like the instant case) would be substantially different for valuation purposes than the cases on which his report is premised.⁵

⁵ For this reason, should Dr. Lang be permitted to testify, Mr. Hale should be permitted (if he chooses) to elicit evidence of his motivation to inform the public. As the government has argued, such evidence would be inadmissible for other purposes. But it would plainly be admissible to undercut the reliability of Dr. Lang’s testimony, given the potential difference in value between the types of documents likely to be disclosed by a person motivated by money and those likely to be disclosed by one motivated to inform the public.

Second, even setting aside the exclusion of non-monetarily-motivated cases, the 28 cases Dr. Lang selected for inclusion in his report do not provide a relevant or reliable basis to offer any opinion relevant to the valuation of the documents in this case. Most of the cases in his report are on PERSEREC's public website, which provides summaries of cases up to 2008,⁶ and while the report purports to include convictions between 1985 and 2017, almost all of the cases in the report are from the 1980s or 1990s. Further, Dr. Lang included cases that involved substantially different facts; the inclusion of such cases calls into question whether some of the 28 cases are relevant even in the slightest sense to determining the value of the documents at issue in this case. For example, Dr. Lang included cases concerning violations of U.S. export control laws. There is no evident methodology for why he selected those U.S. export control violation cases and not the likely hundreds of other U.S. export control violation cases involving the U.S. defense industry that have occurred during his report's timeframe of 1985-2017.⁷ And, of course, export-control cases often involve the sale of defense technology – a substantially different type of conduct, particularly for valuation purposes, than the conduct in this case.

Significantly, the inclusion of cases with dramatically different facts has an outsize effect on his conclusions. For example, Dr. Lang's report includes cases that are significant outliers in monetary value and are of scant if any relevance to this

⁶ See PERSEREC, *Espionage and Other Compromises of National Security 1975-2008*, available at <https://www.dhra.mil/PERSEREC/Espionage-Cases>.

⁷ See, e.g., <https://www.justice.gov/nsd/page/file/1044446/download> (61-page summary detailing some of the “major” export-control and related cases brought by the Department of Justice in a three-year period).

case because the facts were so different, such as the sale of hardware, software, or technical data controlled under U.S. export control laws rather than classified documents. For example, by far the largest valued case in the report, which Dr. Lang stated had a value of \$636,000, involved defendant Ronald Joshua Hoffman, who reportedly sold a U.S. corporation's software program developed for the U.S. Air Force to four Japanese companies for \$750,000.⁸ Mr. Hoffman was convicted in 1992 for violating U.S. export control laws. This case has minimal apparent relevance to the case at issue, yet it alone accounts for more than a third of the total value represented by the 28 cases Dr. Lang included. Excluding just this case from Dr. Lang's report reduces its aggregate mean value from \$57,516 to \$36,091.⁹

Dr. Lang's report also does not take into account the amount of documents reportedly disclosed. For example, the report's second and third largest-in-value cases, both for \$300,000, involved massive amounts of classified documents. One of those cases involved defendant George Trofimoff, who was a U.S. Army colonel convicted in 2001 of spying for the Russian government for 25 years and providing

⁸ While Dr. Lang's report states that the defendant allegedly requested, offered, or received \$636,000, PERSEREC's public summary states that the defendant received \$750,000 from those Japanese companies for the proprietary software. Dr. Lang's report does not explain how he calculated \$636,000.

⁹ Similarly, the fourth largest-in-value case in Dr. Lang's report regarding defendant Hannah Robert, which Dr. Lang valued at \$77,795, also involved conspiracy to violate the Arms Export Control Act by exporting thousands of technical drawings of defense hardware items and sensitive military data to foreign customers without prior approval of the U.S. Department of State. Again, violating arms export laws by selling technical drawings of military hardware is far afield from the facts of this case.

over 50,000 pages of classified documents to the KGB for \$250,000.¹⁰ The other case involved defendant James W. Hall III, who sold documents on 30 to 60 occasions to eastern-bloc governments during the Cold War – one of which alone was 4,528 pages, while others included things like Western war plans in the event of war in Europe;¹¹ he was paid a retainer of \$30,000 per year by East Germany, along with other unspecified cash payments totaling between \$100,000 and \$200,000, based on PERSEREC’s public summary of this case. These cases involved the disclosure of massive amounts of highly classified documents over numerous years. But because Dr. Lang makes no adjustments based on the quantity of data involved, and instead simply adds the monetary totals before calculating an average, these cases are of slight if any value as comparators to estimate the value of the 14 documents ranging from classified to unclassified that were allegedly disclosed in this case. If the four largest-in-value cases are removed from Dr. Lang’s report, its aggregate mean value plummets from \$57,516 to \$12,360. And, of course, the four cases discussed above (the four largest-in-value cases) are only representative of the problems in Dr. Lang’s report; there is no reason to believe that the other 24 cases he relies upon provide

¹⁰ It is again unclear why Dr. Lang’s report states a value of \$300,000, while PERSEREC’s public summary reports that the defendant received \$250,000.

¹¹ See Stephen Engelberg, *U.S. Says Soldier Crippled Spy Post Set Up in Berlin*, New York Times, May 7, 1989 (available at www.nytimes.com/1989/05/07/world/us-says-soldier-crippled-spy-post-set-up-in-berlin.html) (referring to 30 to 60 deliveries of classified information such as information on American eavesdropping systems and Western war plans in the event of European war); Georg Mascolo, *Destruction of Traces in Office*, Der Spiegel, July 26, 1999 (available at www.spiegel.de/spiegel/print/d-14010746.html) (referring to the NSA’s 4,528 page National Sigint Requirement List as the “masterpiece” of the items sold by Hall).

meaningful comparators to assist the jury in determining the value of the documents at issue in this case.¹²

Finally, Dr. Lang's report does not consider the effect that the passage of time might have on the value of documents. For example, the evidence in this case will show that several of the documents allegedly disclosed were tactical in nature and not disclosed until two or more years after their creation. Tactical documents might have high value in the short term, but their value invariably declines at a much faster rate than other types of information, such as the proprietary software at issue in the export-control cases. Indeed, tactical information may have no value at all within days or weeks of its creation, while other types of information – for example, blueprints of a military installation – may retain value for decades. But, again, Dr. Lang's report gives no weight to such differences, and assumes that exfiltrated DoD resources are interchangeable – regardless of type, quantity or recency – for purposes of valuation.

In sum, Dr. Lang's report does not involve a rigorous methodology that analyzes cases that would assist the jury in evaluating the facts of this case. Instead, it is based on a seemingly random selection of cases regardless of their factual

¹² One case cited by Dr. Lang, the defense agrees, *is* factually similar to the allegations in the instant case. Specifically, Dr. Lang included the case of defendant Ronald Craig Wolf, a former U.S. Air Force pilot who attempted to sell Top Secret classified documents concerning signals intelligence. Dr. Lang valued this case at \$300, which was the amount that a Federal Bureau of Investigation ("FBI") undercover officer posing as a Russian agent apparently paid Mr. Wolf for the documents. Even adjusting for inflation, the Wolf case would fall below the \$1,000 felony threshold in 18 U.S.C. § 641.

relevance to the instant case, and gives the most weight to the cases that bear the least resemblance to the case at hand. Indeed, Dr. Lang's mode of analysis can barely be described as a methodology at all – much less the sort of rigorous, scientifically-defensible methodology required of experts – because anyone with a calculator and access to the internet could look up cases, add the values, and calculate the average. Of course, if such testimony were offered by a fact witness – reviewing public information about cases with minimal factual connection to the instant case – it would be excluded as irrelevant under Fed. R. Evid. 401 & 402. In the case of proffered expert testimony, Rule 702 and *Daubert* require the same result.

CONCLUSION

For all of the foregoing reasons, Dr. Lang's proposed expert testimony is not based on a rigorous methodology, does not provide relevant or reliable monetary values, does not involve any application of expertise, and is not reliably connected to the facts of this case. Moreover, all the underlying data for the report is based on the cases that are most *dissimilar* to the instant case – cases in which the defendants were motivated by money, and thus were motivated to take a certain *kind* of documents that are distinctly different than documents likely to be taken by a defendant seeking to inform the public. Such testimony cannot withstand the exacting scrutiny required by *Daubert* and its progeny, and moreover offers no expertise beyond the application of simple math to a collection of dollar figures culled (somewhat randomly) from publicly available sources.

This Court should therefore hold a hearing pursuant to *Daubert v. United States* with respect to the methodology applied by Dr. Lang in support of his proffered expert testimony. Further, because his testimony is not premised on a reliable methodology and does not involve the reliable application of specialized knowledge to the facts of this case, the Court should find the testimony inadmissible.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on October 28, 2020, I filed the foregoing via the CM/ECF system, which will serve a copy electronically upon all counsel of record.

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